

IN THE CLAIMS

- 10 (Not entered) Claim 1: An improved intercropping and mulching method without artificial herbicides, fertilizer, pesticides and manure, said improved intercropping and mulching method comprising:
- (1) no-till planting an annual green manure crop in the soil of a predetermined area;
- 15 (2) mowing said annual green manure crop the following spring, said annual green manure crop being combined with organic residue from said predetermined area to form combined green manure, said organic residue comprising desiccated intact soybean roots and desiccated intact nitrogen nodules, said combined green manure comprising a first portion of said combined green manure and a second portion of said combined green
- 20 manure, said second portion of said combined green manure further blended with said soil of said predetermined area to a depth of approximately nine to fourteen inches, said annual green manure crop remaining unmowed until tillage of said soil,
- (3) intercropping at least two commercial crops within said soil blended with said second portion of said combined green manure, said first portion of said combined green manure being collected, chopped and stored until intercropping is complete, said first portion of said combined green manure becoming said combination mulch after said chopping,

(4) thereafter spraying said first portion of said combination mulch upon the surface of said soil of said predetermined area, said predetermined area now containing seeds of said at least two commercial crops,

5 whereby said combined green manure provides nutrients to said at least two commercial crops and said combination mulch provides a ground cover and nutrients for said at least two commercial crops, said annual green manure crop and said organic residue protecting said soil of said predetermined area during the winter.

10 (Not entered) Claim 2. The improved intercropping and mulching method as described in Claim 1, wherein one of said at least two commercial crops comprises a legume.

(Not entered) Claim 3. The improved intercropping and mulching method as described in Claim 1, wherein one of said at least two commercial crops comprises soybeans.

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(Not entered) Claim 4. The improved intercropping and mulching method of Claim 1 wherein one of said at least two commercial crops comprises corn.

20 (Not entered) Claim 5. The improved intercropping and mulching method of Claim 1 wherein one of said at least two commercial crops comprises corn and one of said at least two commercial crops comprises soybeans.

(Not entered) Claim 6. The improved intercropping and mulching method as described in Claim 1, wherein there are no intercropped plants other than said at least two commercial crops, said at least two commercial crops comprising said corn and said soybeans.

5 (Not entered) Claim 7. The improved intercropping and mulching method as described in Claim 6 wherein said corn and said soybeans are planted in alternating patterns comprising soybean areas and corn rows, each said soybean area and said corn row comprising a predetermined lateral width.

10 (Withdrawn) Claim 8.

(Currently amended) Claim 9. An improved intercropping and mulching method comprising:

(1) planting an annual green manure crop in the soil of a predetermined area;

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(2) mowing said annual green manure crop the following spring, said annual green manure crop being combined with organic residue to form combined green manure, said combined green manure comprising a first portion of said combined green manure and a second portion of said combined green manure, said second portion of said combined

20 green manure further blended with said soil of said predetermined area, said first portion of said combined green manure being mechanically collected and mechanically chopped and thereby becoming a combination mulch,

(3) intercropping at least two commercial crops within said soil blended with said second portion of said combined green manure, said combination mulch being stored during said intercropping,

5 (4) thereafter spraying said first portion of said ~~combined~~ combination mulch upon said soil of said predetermined area, said predetermined area now containing seeds of said at least two commercial crops,

10 whereby said combined green manure provides nutrients to said at least two commercial crops and said combination mulch provides a ground cover and nutrients for said at least two commercial crops, said annual green manure crop and said organic residue protecting said soil of said predetermined area during the winter,

one of said at least two commercial crops comprising a legume,

15 One of said two commercial crops further comprising soybeans,

one of said at least two commercial crops comprising corn,

said at least two commercial crops comprising corn and soybeans,

there being no intercropped plants other than said at least two commercial crops

comprising corn and soybeans,

20 Said corn and said soybeans planted in alternating patterns comprising corn rows and soybean areas respectively, each said soybean area and said corn row comprising a predetermined lateral width,

said annual green manure crop selected from the group consisting of ~~buckwheat or buckwheat and~~ wheat, Austrian peas, hairy vetch, soybeans, annual rye grass and winter rye.

5 (Not entered) Claim 10. The improved intercropping and mulching method as described in Claim 9, wherein said annual green manure crops are mowed with a conventional mechanical forage harvester.

(Currently amended) Claim 11. The improved intercropping and mulching method as
10 described in Claim 10,
wherein said combination ~~green manure~~ mulch is sprayed upon said soil of said predetermined area after blending and chopping of said green manure plants and organic debris within a bale chopper.

15 (Not entered) Claim 12. The improved intercropping and mulching method as described in Claim 11 wherein said intercropped soybeans are planted simultaneously with said intercropped corn by using a fork lift attachment with two forks, front end loader and tractor, corn planter, and a modified seed drill, said modified seed drill and said fork lift attaching to said tractor by said front end loader, said fork lift attachment elevated with a
20 hydraulic lift and a retrofit adapter.

(Not entered) Claim 13. The improved intercropping and mulching method as described in Claim 12 wherein said corn planter deposits said corn seeds between previously planted said soybean areas, said soybean areas consisting of soybean subrows, said

soybean subrows deposited by said modified seed drill attached to [said] a tractor, said corn seeds deposited within straight corn furrows.

5 (Withdrawn) Claim 14.

(Currently amended) Claim 15. The method described in Claim [[14]] 7 wherein [said] soybean seeds are planted at approximately eight to twenty seeds per square foot of said soil and [said] corn seeds are planted at approximately one corn seed per eight linear inches of said soil, said soybean seeds planted during the same pass across said preselected soil as said corn seeds.

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15 (Currently amended) Claim 16. The method described in Claim [[14]] 7 wherein [[said]] a modified seed drill comprises eight [[said]] sets of [said] tru-vee openers and one center bar, a single said set of said tru-vee openers fitting between [[said]] first and second forks, said single set of tru-vee openers positioned immediately proximal to either side of said center bar, each said first and second fork resting upon [[said]] an opener draw bar on either side of said single said set of said tru-vee openers, each said first and second fork attached to said opener draw bar by a clamp.

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(Currently amended) Claim 17. The method described in Claim [[14]] 7 wherein each said three soybean subrows comprising a soybean area [[is]] are approximately 21 inches in total lateral width.

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(Currently amended) Claim 18. The method as described in Claim [[14]] 7 wherein
rotating augers pull said organic debris and said green manure plants from said forage
box wagon into [[said]] a bale chopper, said bale chopper attaching to a discharge
opening by sliding said bale chopper until interior surfaces of a bale tube fit snugly over
5 exterior surfaces of panels of [[said]] an attached storage forage box wagon.

(Currently amended) Claim 19. The method as described in Claim [[14]] 16 wherein said
true-vee openers are arranged in said sets of three, thereby leaving lateral space between
each said set along said horizontal bar, each said set seeding soybeans within said three
10 said soybean subrows when said modified seed drill is pulled by [[said]] a tractor, each
said lateral space resulting in unseeded soil, said unseeded soil then seeded with said
corn seed within said corn furrows while said corn planter is pulled by said tractor, said
seeding of said corn seed and said soybean seed occurring with said modified seed drill
and [[said]] corn planter operatively attached to said a single tractor.

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(Currently amended) Claim 20. The method as described in Claim 19 wherein
said two sides of a bale tube attach to said bale chopper, said two sides of said bale tube
snugly fitting over an anterior and posterior panel, said anterior and posterior panels
20 surrounding said augers of said forage box wagon, said sides of said bale tube
mechanically attached to said anterior and posterior panels, said forage box wagon
physically attaching to a [[said]] bale chopper main frame with L-brackets, said green
manure plants and organic debris chopped within said bale chopper main frame after
passing said augers.